

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)
2. (Currently Amended) The method of claim 7, further including:
~~the granting service~~ generating, by the granting service, a Ticket-Granting-Ticket utilizing a protocol substantially in compliance with the Kerberos protocol; and
wherein receiving, by the granting service, a request for a Service Ticket from ~~a~~the client ~~further includes~~comprises the granting service receiving the Ticket-Granting-Ticket from the client.
3. (Currently Amended) The method of claim 7, wherein the method further comprises, upon ~~the granting service~~ determining, by the granting service, that the requested service is provided by a plurality of servers, ~~the granting service further:~~
determining, by the granting service, a number of the plurality of servers designated to provide the requested service; and
encrypting, by the granting service, a cipher text with ~~each of~~ the session keys;
wherein ~~the said~~ determining, by the granting service, ~~of~~ a number of the plurality of servers designated to provide the requested service ~~includes~~comprises:
~~the granting service~~ utilizing, by the granting service, a database that maps a generic server names to a specific server names; and
~~the granting service~~ setting, by the granting service, the numbers of servers designated to provide the service equal to ~~a~~the number of specific server names mapped to ~~a~~the generic server name that provides the requested service.

4. (Currently Amended) The method of claim 3, wherein ~~the granting service~~ utilizing, by the granting service, ~~a~~ the database that maps ~~a~~ generic server names to ~~a~~ specific server names includes the granting service comprises selecting, by the granting service, a database from a group consisting essentially of:

- a domain name server database,
- a database associated with a Key Distribution Center, and
- a Kerberos database.

5. (Currently Amended) The method of claim ~~3~~ 7, wherein ~~the~~ secret keys associated with ~~each~~ respective providing servers are not synchronized across the respective providing servers.

6. (Currently Amended) The method of claim 3, wherein the created Service Ticket includes:

- a header that designates the Service Ticket as a format that includes multiple encrypted session keys,
- a field that expressly designates the number of encrypted session keys,
- an encrypted session key for ~~each~~ respective providing servers, and
- the encrypted cipher text.

7. (Currently Amended) A method of generating a Service Ticket for a requested Service comprising:

- receiving, by a granting service of a computing device, the computing device being different and distinct from a client, a request for a Service Ticket from the client;

- ~~the granting service~~, determining, by the granting service, that the requested service is provided by a plurality of servers; ~~and~~

- ~~the granting service~~:

- generating, by the granting service, a session key;

———~~for each respective providing servers out of the plurality of servers, encrypting, by the granting service, a copy of the session key with a respective secret keys associated with each the respective providing servers;~~
———creating, by the granting service, a Service Ticket that includes the encrypted session keys for the plurality of providing servers; and
———transmitting, by the granting service, the Service Ticket to the client.

8. (Currently Amended) A method of generating a Service Ticket for a requested service comprising:

receiving, by a granting service of a computing device, the computing device being different and distinct from a client, a request for a Service Ticket from the client;

determining, by the granting service, that the requested service is not provided by a plurality of servers;

generating, by the granting service, the Service Ticket utilizing a single server mode, wherein the granting service generating the Service Ticket utilizing a single server mode includes:

~~the granting service~~ generating, by the granting service, a cipher text;

~~the granting service~~ encrypting, by the granting service, the cipher text with a secret key associated with the providing server;

generating, by the granting service, the Service Ticket to include the encrypted cipher text; and

~~the granting service~~ transmitting, by the granting service, the Service Ticket, ~~that includes the encrypted cipher text,~~ to the client.

9. (Canceled)

10. (Currently Amended) The method of claim 13, wherein ~~the receiving server~~ receiving a Service Ticket is part of a series of client transactions substantially in compliance with the Kerberos protocol.

11. (Currently Amended) The method of claim 13, wherein ~~the receiving server~~ decrypting, by the server, the encrypted session key includes:

~~the receiving server~~ determining, by the server, a number of the plurality of encrypted session keys included within the received Service Ticket;

~~for each encrypted session key, the receiving server~~ decrypting, by the server, the respective encryption session keys out of the plurality of encrypted session keys utilizing a secret key associated with the ~~receiving server~~; and

wherein ~~the receiving server~~ decrypting, by the server, the cipher text utilizing the decrypted session key includes:

~~for each respective encrypted session keys, the receiving server~~ attempting, by the server, to decrypt the cipher text with ~~an~~ the associated respective decrypted session key;

if the cipher text is successfully decrypted, ~~the receiving server~~ providing, by the server, the service to the client.

12. (Currently Amended) The method of claim 13, wherein ~~the receiving server~~ decrypting the encrypted session key associated with the ~~receiving server~~ utilizing a secret key associated with the ~~receiving server~~ includes:

~~the receiving server~~ utilizing, by the server, a server identifier to determine which encrypted session key is associated with the ~~receiving server~~; and

~~the receiving server~~ decrypting, by the server, the ~~associated~~ determined encrypted session key utilizing a secret key associated with the ~~receiving server~~.

13. (Currently Amended) A method of authenticating a client's request for a service provided by a service pool comprising:

~~a server~~ receiving a Service Ticket, by a server, from the client, the Service Ticket having respective encrypted session keys, each key associated with respective ~~a~~ servers within the service pool, and an encrypted cipher text, ~~the client sending service tickets to multiple servers, including the receiving server, to establish multiple connections;~~

~~the receiving server~~ determining, by the server, that the received Service Ticket includes a plurality of encrypted session keys for multiple servers; ~~and~~

~~the receiving server:~~

———~~decrypting, by the server, the an~~ encrypted session key associated with the ~~receiving server~~, utilizing a secret key associated with the ~~receiving server~~;

———~~decrypting, by the server,~~ the cipher text utilizing the decrypted session key; and

———~~providing, by the server,~~ the service to the client.

14. (Currently Amended) The method of claim 52, wherein ~~the receiving server~~ processing the ticket in a single server mode ~~includes~~ comprises ~~the receiving server processing, by the server,~~ the Service Ticket in compliance ~~utilizing a process substantially compliant with the~~ Kerberos protocol.

15. (Currently Amended) The method of claim 13, wherein ~~the receiving server~~ receiving, by the server, ~~at~~ the Service Ticket includes:

~~a managing agent first receiving at~~ the Service Ticket by a managing agent of the server;

~~the managing agent selecting, by the managing agent,~~ the ~~receiving server~~ from a server pool having a plurality of servers; and

routing, by the managing agent, the Service Ticket to the ~~receiving server~~.

16. (Currently Amended) The method of claim 15, wherein respective servers out of the plurality of servers ~~each includes~~ respective a secret keys associated with the respective servers, and the plurality of secret keys are not synchronized among the plurality of servers.

17. (Original) The method of claim 16, wherein the server pool functions as a group of independent computers working together as a single system.

18-34. (Canceled)

35. (Currently Amended) The article of claim 40, further including instructions ~~to that, in response to execution by the computing device,~~ provide for:

the granting service generating a Ticket-Granting-Ticketing ~~utilizing a protocol~~ substantially in compliance with the Kerberos protocol; and

wherein receiving, by the granting service, a request for a Service Ticket from ~~a~~the client further ~~includes~~ comprises receiving, by the granting service, the Ticket-Granting-Ticket from the client.

36. (Currently Amended) The article of claim 40, wherein the instructions, in response to execution by the computing device, further provide for, upon the granting service determining that the requested service is provided by a plurality of servers, the granting service:

determining a number of the plurality of servers designated to provide the requested service; and

encrypting a cipher text with ~~each of~~ the session keys; and

wherein providing for ~~the determining of~~ a number of the plurality of servers designated to provide the requested service ~~includes instructions~~ comprises providing for:

the granting service utilizing a database that maps ~~a~~ generic server names to a specific server names; and

the granting service setting the numbers of servers designated to provide the service equal to ~~a~~the number of specific server names mapped to ~~a~~the generic server name that provides the requested service.

37. (Currently Amended) The article of claim 36, wherein the instructions which provide for the granting service utilizing a database that maps ~~a~~ generic server names to a specific server names ~~include~~ comprise instructions that, in response to execution by the computing device, ~~to~~ provide for the granting service selecting a database from a group consisting essentially of:

a domain name server database,

a database associated with a Key Distribution Center, and

a Kerberos database.

38. (Currently Amended) The article of claim ~~36~~40, wherein the respective secret keys associated with ~~the respective~~each providing servers are not synchronized across the respective providing servers.

39. (Currently Amended) The article of claim 36, wherein the instructions which provide for the granting service creating a Service Ticket further include instructions that, in response to execution by the computing device, ~~to provide for the granting service creating by the granting service~~ a Service Ticket that includes:

- a header that designates the Service Ticket as a format that includes multiple encrypted session keys,

- a field that expressly designates the number of encrypted session keys,

- an encrypted session key for each providing server, and

- the encrypted cipher text.

40. (Currently Amended) An article comprising[[:]]

——— a tangible machine-accessible storage medium having a plurality of machine accessible instructions, wherein, ~~when the instructions are executed,~~ in response to execution by a computing device, ~~the instructions~~ provide for:

- receiving, by a granting service of the computing device, the computing device being different and distinct from a client, a request for a Service Ticket from the client;

- the granting service determining that the requested service is provided by a plurality of servers; and

- the granting service:

- generating a session key;

- for ~~each~~ respective providing servers, encrypting a copy of the session key with a respective secret keys associated with ~~each~~ the respective servers;

- creating a Service Ticket that includes the encrypted session keys for the plurality of servers; and

transmitting the Service Ticket to the client.

41. (Currently Amended) An article comprising[[:]]

——a tangible machine-accessible storage medium having a plurality of machine accessible instructions, wherein ~~when the instructions are executed,~~ in response to execution by a computing device, ~~the instructions provide for:~~

receiving, by a granting service of the computing device, the computing device being different and distinct from a client, a request for a Service Ticket from the client;

the granting service determining that the requested service is not provided by a plurality of servers; and

the granting service generating by the granting service the Service Ticket utilizing a single server mode; ~~and~~

wherein the instructions providing for the granting service generating the Service Ticket utilizing a single server mode ~~includes~~ comprise instructions providing for:

the granting service generating a cipher text;

the granting service encrypting the cipher text with a secret key associated with ~~the a~~ providing server;

the granting service generating the Service Ticket to include the encrypted cipher text; and

the granting service transmitting the Service Ticket, ~~that includes the encrypted cipher text,~~ to the client.

42. (Canceled)

43. (Currently Amended) The article of claim 46, wherein the instructions, in response to execution by the computing device, provide for the server receiving a Service Ticket to be part of a series of client transactions ~~substantially~~ that are in compliance with the Kerberos protocol.

44. (Currently Amended) The article of claim 46, wherein the instructions which provide for the server decrypting the encrypted session key include instructions that, in response to execution by the computing device, ~~to~~ provide for:

the server determining a number of the plurality of encrypted session keys included within the received Service Ticket;

~~for each encrypted session key,~~ the server decrypting ~~the~~ respective encrypted session keys out of the plurality of encrypted session keys utilizing a secret key associated with the ~~receiving~~ server; and

wherein the server decrypting the cipher text utilizing the decrypted session key includes

for ~~each~~ respective encrypted session keys, the server attempting to decrypt the cipher text with an associated respective ~~the~~ decrypted session key;

if the cipher text is successfully decrypted, the server providing the service to the client.

45. (Currently Amended) The article of claim 46, wherein the instructions which provide for the server decrypting the encrypted session key associated with the ~~receiving~~ server utilizing a secret key associated with the ~~receiving~~ server include instructions that, in response to execution by the computing device, ~~to~~ provide for:

the server utilizing a server identifier to determine which encrypted session key is associated with the ~~receiving~~ server; and

the server decrypting the ~~associated~~ determined encrypted session key utilizing a secret key associated with the ~~receiving~~ server.

46. (Currently Amended) An article comprising[[:]]

——— a storage medium having a plurality of machine accessible instructions, wherein, ~~when the instructions are executed,~~ in response to execution by a server, ~~the instructions~~ provide for:

the server receiving a Service Ticket, from a client, the Service Ticket having respective encrypted session keys, ~~each key~~ associated with a respective servers within the service pool, and an encrypted cipher text, ~~the client sending service tickets to multiple servers, including the receiving server, to establish multiple connections;~~

the ~~receiving~~ server determining that the received Service Ticket includes a plurality of encrypted session keys for multiple servers; and

~~the receiving server:~~

———~~the server~~ decrypting the encrypted session key associated with the ~~receiving~~ server, utilizing a secret key associated with the ~~receiving~~ server;

———~~the server~~ decrypting the cipher text utilizing the decrypted session key; and

———~~the server~~ providing the service to the client.

47. (Currently Amended) The article of claim 58, wherein the instructions which provide for the server processing the ticket in a single server mode include instructions that, in response to execution by the server, ~~to~~ provide for the server processing the Service Ticket ~~in~~ utilizing a process ~~substantially compliant~~ that is in compliance with the Kerberos protocol.

48. (Currently Amended) The article of claim 46, wherein the instructions which provide for the server receiving a Service Ticket include instructions ~~to,~~ that, in response to execution by the server, provide for:

a managing agent of the server ~~first receiving a~~ the Service Ticket;

the managing agent selecting the server from a server pool having a plurality of servers;

and

routing the Service Ticket to the server.

49. (Currently Amended) The article of claim 48, wherein respective servers out of the plurality of servers ~~each includes a~~ respective secret keys associated with the respective servers, and the plurality of secret keys are not synchronized among the plurality of servers.

50. (Original) The article of claim 49, wherein the server pool functions as a group of independent computers working together as a single system.

51. (Currently Amended) The method of claim 8, further including:

~~the granting service~~ generating, by the granting service, a Ticket-Granting-Ticket utilizing a protocol substantially in compliance with the Kerberos protocol; and

wherein receiving, by the granting service, a request for a Service Ticket from a client further includes ~~the granting service~~ receiving, by the granting service, the Ticket-Granting-Ticket from the client.

52. (Currently Amended) A method of authenticating a client's request for a service provided by a service pool comprising:

~~a server~~ receiving a Service Ticket, by a server, from the client, the Service Ticket having at least one encrypted session key, and an encrypted cipher text, ~~the client sending service tickets to multiple servers, including the server, to establish multiple connections;~~

~~the receiving server~~ determining, by the server, that the received Service Ticket does not include a plurality of encrypted session keys for multiple servers; and

~~the receiving server~~ processing, by the server, the ticket in a single server mode, the processing in single server mode to include comprising:

decrypting, by the server, the encrypted session key utilizing a secret key associated with the ~~receiving~~ server;

decrypting, by the server, the cipher text utilizing the decrypted session key; and providing, by the server, the service to the client.

53. (Currently Amended) The method of claim 52, wherein ~~the receiving server~~ receiving a Service Ticket is part of a series of client transactions substantially in compliance with the Kerberos protocol.

54. (Currently Amended) The method of claim 52, wherein ~~the receiving server~~ receiving a Service Ticket includes:

~~a managing agent first~~ receiving a the Service Ticket by a managing agent of the server;
~~the managing agent~~ selecting, by the managing agent, the ~~receiving~~ server from a server pool having a plurality of servers; and

routing, by the managing agent, the Service Ticket to the ~~receiving~~ server.

55. (~~Previously Presented~~Currently Amended) The method of claim 54, wherein respective servers out of the plurality of servers each includes a respective secret keys associated with the respective servers, and the plurality of secret keys are not synchronized among the plurality of servers.

56. (Previously Presented) The method of claim 55, wherein the server pool functions as a group of independent computers working together as a single system.

57. (Previously Presented) The article of claim 41, further including instructions that, in response to execution by the computing device, providing provide for:

the granting service generating a Ticket-Granting-Ticket utilizing a protocol substantially in compliance with the Kerberos protocol; and

wherein receiving by the granting service a request for a Service Ticket from a client further includes receiving by the granting service the Ticket-Granting-Ticket from the client.

58. (Currently Amended) An article comprising[[:]]
——— a tangible machine-accessible storage medium having a plurality of machine-accessible instructions, wherein, ~~when the instructions are executed~~, in response to execution by a server, ~~the instructions provide~~ for:

the server receiving a Service Ticket, from a client, the Service Ticket having at least one encrypted session key, and an encrypted cipher text, ~~the client sending service tickets to multiple servers, including the receiving server, to establish multiple connections;~~

the ~~receiving~~ server determining that the received Service Ticket does not include a plurality of encrypted session keys for multiple servers; and

the ~~receiving~~ server processing the ticket in a single server mode, wherein processing the ticket in a single server mode ~~to include~~ comprises:

decrypting the encrypted session key utilizing a secret key associated with the receiving server;

decrypting the cipher text utilizing the decrypted session key; and

providing the service to the client.

59. (Currently Amended) The article of claim 58, wherein the instructions, in response to execution by the server, provide for the server receiving a Service Ticket to be part of a series of client transactions ~~substantially~~ that are in compliance with the Kerberos protocol.

60. (Currently Amended) The article of claim 58, wherein the instructions which provide for the server receiving a Service Ticket include instructions that, in response to execution by the server, ~~to~~ provide for:

a managing agent of the server ~~first~~ receiving a Service Ticket;

the managing agent selecting the server from a server pool having a plurality of servers;

and

the managing agent routing the Service Ticket to the server.

61. (Currently Amended) The article of claim 60, wherein respective servers out of the plurality of servers ~~each includes a~~ respective secret keys associated with the respective servers, and the plurality of secret keys are not synchronized among the plurality of servers.

62. (Previously Presented) The article of claim 61, wherein the server pool functions as a group of independent computers working together as a single system.